

REMARKS

I. Summary of Claims

Claim 1 is amended is amended to incorporate the subject matter of claim 16.

Claim 16 is canceled without prejudice or disclaimer. Claims 2 and 6 were previously canceled.

No new matter is added. Accordingly, Applicants respectfully request entry and consideration of the Amendment. Upon entry of the Amendment, claims 1, 3-5 and 7-15 will be pending in the application.

II. Response to Claim Rejection Under 35 U.S.C. § 103

A. Claims 1, 3-5 and 9-16 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lai et al. (U.S. Patent No. 5,871,650), Verduijn et al. (U.S. Patent No. 6,090,289), and Goldsmith et al. (U.S. Patent No. 5,221,484).

Without acquiescing to the merits, claim 16 is canceled.

Claims 1, 3-5 and 9-15 are patentable, at least for the following reasons.

Claim 1 is drawn to a separation membrane for separating water from organic solvent comprising a porous substrate which is made of ceramic sintered body of which a main ingredient is alumina, and a zeolite membrane which is formed over the surface of the porous substrate. The porous substrate comprises a base layer and a foundation layer which is formed on the base layer and is formed for the zeolite membrane, and the separation membrane is characterized in that a mean pore diameter of the foundation layer is smaller than a mean pore diameter of the base layer. The thickness of the foundation layer is in the range of 10-200 μm , wherein a nitrogen gas permeation rate is in the range of 200-7000 $\text{m}^3/(\text{m}^2 \cdot \text{hr} \cdot \text{atm})$, and a separation factor α of the separation membrane is 1000 or more.

Lai, Verduijn and Goldsmith teach a mean pore diameter of the base layer, a mean pore diameter of the foundation layer and thickness of the foundation layer. However, none of Lai, Verduijn or Goldsmith teaches or suggests the claimed nitrogen gas permeation rate or a separation membrane for separating water from organic solvent

Evidence of nonobviousness or unexpected advantageous properties, such as superiority in a property that the claimed invention shares with the cited references can rebut a *prima facie* case of obviousness. Moreover, comparative data in the specification which is intended to illustrate the claimed invention must be considered in reaching a conclusion with regard to the obviousness of the claims.

Example Nos. 3, 4, 5, 6 and 7 of the present specification provide unexpected results in terms of separation capabilities of the separation membrane for separating water from organic solvent

Applicants respectfully disagrees with the Examiner's characterization that the separation membrane as taught by Lai, Verduijn and Goldsmith is capable to performing the recited intended use because claim 16, which is currently incorporated into claim 1, recites only an intended use of the separation membrane but does not add any further structural limitations to the apparatus of claim 1.

However, none of Lai, Verduijn and Goldsmith teaches a "separation membrane for separating water from organic solvent" and "a nitrogen gas permeation rate," and, none of Lai, Verduijn and Goldsmith suggests that the "separation membrane for separating water from organic solvent" is related to "a nitrogen gas permeation rate."

Therefore, claim 1 is patentable over Lai, Verduijn and Goldsmith. Claims 3-5 and 9-15 are also patentable, at least by virtue of their dependence from claim 1. Accordingly, Applicants

respectfully request reconsideration and withdrawal of the § 103(a) rejection of claims 1, 3-5 and 9-15.

B. Claims 7 and 8 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lai, Verduijn and Goldsmith and Moyer et al. (U.S. Patent No. 5,198,007).

Claim 7 and 8 are patentable, at least by virtue of their dependence from claim 1, and because Moyer does not cure the deficiencies in Lai, Verduijn and Goldsmith with respect to claim 1.

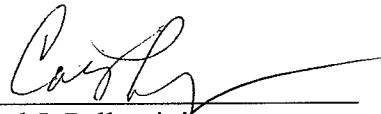
Accordingly, Applicants respectfully request reconsideration and withdrawal of the §103(a) rejection of claims 7 and 8.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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